

Response to Election of Species and Amendment
Application No. 10/776,204

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A unit for stabilizing a wavelength of a light, comprising:
 - (a) a first light-receiver ~~directly~~-receiving a part of laser beams irradiated from a semiconductor laser;
 - (b) a wavelength-filter ~~directly~~-receiving a part of said laser beams, and having a transmittance varying in accordance with a wavelength of the received laser beams; and
 - (c) a second light-receiver receiving laser beams having passed through said wavelength-filter,

wherein said first light-receiver has a first edge, and said second light-receiver has a second edge located in the vicinity of said first edge, and

said first edge has a first linear portion and said second edge has a second linear portion extending in parallel with said first linear portion.

2. (original): The unit as set forth in claim 1, wherein each of said first and second light-receivers is a part of a photodetector mounted on a substrate, said first light-receiver having a first light-receiving surface coextensive in a plane perpendicular to said substrate, said second light-receiver having a second light-receiving surface coextensive in said plane.

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3. (original): The unit as set forth in claim 2, wherein said first and second linear portions extend in parallel with said substrate.

4. (original): The unit as set forth in claim 2, wherein said first and second linear portions extend perpendicularly to said substrate.

5. (original): The unit as set forth in claim 1, wherein each of said first and second light-receivers is a part of a photodetector, and said photodetector includes said first and second light-receivers by one or more.

6. (currently amended): A unit for stabilizing a wavelength of a light, comprising:

(a) a device collimating laser beams irradiated from a semiconductor laser, into parallel beams;

(b) a first light-receiver directly-receiving a part of said parallel beams;

(c) a wavelength-filter directly-receiving a part of said parallel beams, and having a transmittance varying in accordance with a wavelength of the received laser beams; and

(d) a second light-receiver receiving said parallel beams having passed through said wavelength-filter,

wherein said first light-receiver has a first edge, and said second light-receiver has a second edge located in the vicinity of said first edge, and

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 said first edge has a first linear portion and said second edge has a second linear portion extending in parallel with said first linear portion.

7. (original): The unit as set forth in claim 6, wherein said device is comprised of a lens.

8. (original): The unit as set forth in claim 6, wherein said parallel beams have a ± 2 degrees of parallelization or smaller.

9. (original): The unit as set forth in claim 6, wherein each of said first and second light-receivers is a part of a photodetector mounted on a substrate, said first light-receiver having a first light-receiving surface coextensive in a plane perpendicular to said substrate, said second light-receiver having a second light-receiving surface coextensive in said plane.

10. (original): The unit as set forth in claim 9, wherein said first and second linear portions extend in parallel with said substrate.

11. (original): The unit as set forth in claim 9, wherein said first and second linear portions extend perpendicularly to said substrate.

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12. (original): The unit as set forth in claim 6, wherein each of said first and second light-receivers is a part of a photodetector, and said photodetector includes said first and second light-receivers by one or more.

13. (currently amended): A module for stabilizing a wavelength of an optical signal in optical communication, comprising:

(a) a semiconductor laser forwardly irradiating signal laser beams;
(b) a temperature controller which controls a temperature of said semiconductor laser;
and

(c) a unit which receives laser beams which said semiconductor laser backwardly irradiates, and stabilizes a wavelength of the received laser beams,

wherein said unit is comprised of:

(c1) a first light-receiver directly-receiving a part of laser beams irradiated from a semiconductor laser;

(c2) a wavelength-filter directly-receiving a part of said laser beams, and having a transmittance varying in accordance with a wavelength of the received laser beams; and

(c3) a second light-receiver receiving laser beams having passed through said wavelength-filter,

wherein said first light-receiver has a first edge, and said second light-receiver has a second edge located in the vicinity of said first edge, and

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 said first edge has a first linear portion and said second edge has a second linear portion extending in parallel with said first linear portion.

14. (original): The module as set forth in claim 13, wherein said semiconductor laser is integrated to a device together with a field-absorption type semiconductor optical modulator.

15. (original): The module as set forth in claim 13, further including a second temperature controller which controls a temperature of said unit independently of a temperature of said semiconductor laser.

16. (original): The module as set forth in claim 15, further including a first substrate on which on which said semiconductor laser and said temperature controller are mounted, and a second substrate on which said unit and said second temperature controller are mounted.

17. (currently amended): The module as set forth in claim 13, wherein said unit further includes a device collimating said laser beams irradiated from said semiconductor laser, into parallel beams, wherein said first light-receiver directly receives a part of said parallel beams, and said wavelength-filter directly receives a part of said parallel beams.

18. (original): The module as set forth in claim 17, wherein said device is comprised of a lens.

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19. (original): The module as set forth in claim 17, wherein said parallel beams have a ±2 degrees of parallelization or smaller.

20. (original): The module as set forth in claim 13, wherein each of said first and second light-receivers is a part of a photodetector mounted on a substrate, said first light-receiver having a first light-receiving surface coextensive in a plane perpendicular to said substrate, said second light-receiver having a second light-receiving surface coextensive in said plane.

21. (original): The module as set forth in claim 20, wherein said first and second linear portions extend in parallel with said substrate.

22. (original): The module as set forth in claim 20, wherein said first and second linear portions extend perpendicularly to said substrate.

23. (original): The unit as set forth in claim 13, wherein each of said first and second light-receivers is a part of a photodetector, and said photodetector includes said first and second light-receivers by one or more.

24. (currently amended): A module for stabilizing a wavelength of an optical signal in optical communication, comprising:

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(a) a semiconductor laser irradiating signal laser beams;

(b) a temperature controller which controls a temperature of said semiconductor laser;

(c) a beam splitter which splits said signal laser beams, and

(d) a unit which receives a part of said signal laser beams having been split by said beam splitter, and stabilizes a wavelength of the received signal laser beams,
wherein said unit is comprised:

(c1) a first light-receiver directly-receiving a part of laser beams irradiated from a semiconductor laser;

(c2) a wavelength-filter directly-receiving a part of said laser beams, and having a transmittance varying in accordance with a wavelength of the received laser beams; and

(c3) a second light-receiver receiving laser beams having passed through said wavelength-filter,
wherein said first light-receiver has a first edge, and said second light-receiver has a second edge located in the vicinity of said first edge, and
said first edge has a first linear portion and said second edge has a second linear portion
extending in parallel with said first linear portion.

25. (original): The module as set forth in claim 24, wherein said semiconductor laser is integrated to a device together with a field-absorption type semiconductor optical modulator.

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26. (original): The module as set forth in claim 24, further including a second temperature controller which controls a temperature of said unit independently of a temperature of said semiconductor laser.

27. (original): The module as set forth in claim 26, further including a first substrate on which on which said semiconductor laser and said temperature controller are mounted, and a second substrate on which said unit and said second temperature controller are mounted.

28. (original): The module as set forth in claim 24, wherein said unit further includes a device collimating said laser beams irradiated from said semiconductor laser, into parallel beams, wherein said first light-receiver directly receives a part of said parallel beams, and said wavelength-filter ~~directly~~-receives a part of said parallel beams.

29. (original): The module as set forth in claim 28, wherein said device is comprised of a lens.

30. (original): The module as set forth in claim 28, wherein said parallel beams have a ±2 degrees of parallelization or smaller.

31. (original): The module as set forth in claim 24, wherein each of said first and second light-receivers is a part of a photodetector mounted on a substrate, said first light-receiver having

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a first light-receiving surface coextensive in a plane perpendicular to said substrate, said second light-receiver having a second light-receiving surface coextensive in said plane.

32. (original): The module as set forth in claim 31, wherein said first and second linear portions extend in parallel with said substrate.

33. (original): The module as set forth in claim 31, wherein said first and second linear portions extend perpendicularly to said substrate.

34. (original): The unit as set forth in claim 24, wherein each of said first and second light-receivers is a part of a photodetector, and said photodetector includes said first and second light-receivers by one or more.